AMENDMENTS TO THE DRAWINGS

The attached drawing sheets include changes to Fig. 1, Fig. 2, Fig. 6, Fig. 7, Fig. 8, Fig. 10A, and Fig. 10B.

Attachment: Six (6) Replacement Sheets

REMARKS

The applicants appreciate the acknowledgement of the claim for priority under section 119 and the notice that the certified copy of the priority document has been received.

Also, the applicants acknowledge receipt of the form PTO 1449 which have been filed in this application. However, the form PTO-1449 which was filed on March 1, 2007 is missing initials next to the "Notification of Reasons for Rejection from Japanese Patent Office". Therefore, the applicants respectfully request a completely initialed copy of the form PTO-1449 which was filed on March 1, 2007.

Claims 1, 3, 6, 7, 9, 11-27, 31-32, 34-44, 46, and 48-72 are pending. Claims 2, 4, 5, 8, 10, 28, 29, 30, 33, 45 and 47 have been canceled. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

The drawings are objected to, because the term "voice recognition" should be replaced by "speech recognition." By way of the attached replacement sheets, the term "voice recognition" (or similar) has been replaced with "speech recognition." Additional cosmetic defects which were noted have also been corrected. More particularly, the following changes have been made:

FIG. 1, replace "voice recognition unit" with "speech recognition unit" in box 10; and replace "voice synthesize unit" with "voice synthesizing unit" in box 40.

FIG. 2, replace "voice recognition unit" with "speech recognition unit" in box 10; replace "voice synthesize unit" with "voice synthesizing unit" in box 40; replace "voice interactive system" with "system for performing interactive dialog" in box 1; replace "verses capping

processing unit" with "processing unit for performing interactive dialog" in box 30; and replace reference "41" with reference "40".

FIG. 6, replace "voice recognition unit" with "speech recognition unit" in box 10; replace "voice synthesize unit" with "voice synthesizing unit" in box 40; and replace "voice interactive system" with "system for performing interactive dialog" in box 1.

FIG. 7, replace "voice recognition start" with "speech recognition start" in box S170; and replace "voice recognition completed" with "speech recognition completed" in box S220.

FIG. 8, replace "voice interactive system" with "system for performing interactive dialog" in box 1; replace "voice recognition unit" with "speech recognition unit" in box 10; and replace "voice synthesize unit" with "voice synthesizing unit" in box 40.

FIG. 10A, replace "voice recognition on" with "speech recognition on"; and replace "on" with "speech recognition continues to be in 'ON' state until user's input is completed." Support for the additional wording is located in the application as filed, for example page 35, line 2 to page 36, line 15.

FIG. 10B, replace "voice recognition off" with "speech recognition off"; and replace "on" with "speech recognition on."

In view of the amended drawings, the examiner is respectfully requested to withdraw the objection.

The examiner objects to the specification for use of the term "voice recognition" instead of "speech recognition." The specification, title and abstract has been carefully reviewed and revised to correct these cosmetics defects which the examiner helpfully pointed out, as well as other cosmetic defects which were noted. Also, references to a "verses capping" game are

replaced by a "word chain" game, which is a better translation from the Japanese. A clean copy and a mark-up copy of the substitute specification are attached. In view of the amended specification, the examiner is respectfully requested to withdraw the objection.

Claims 3-57 were objected to due to use of the term "voice recognition" instead of "speech recognition". The claims have been amended to change "voice recognition" to "speech recognition." Also, claims 48 and 51, as amended, have remedied the other wording objected to in the office action.

Claim 49 was rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Claim 49 has been amended; support for amended claim 49 is located in, for example page 33, line 4. The examiner is therefore respectfully requested to reconsider and withdraw the rejection.

Claims 54-57 were rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Specifically, the examiner states that the disposition of cameras or microphones about a robot's head is not supported, and that a robot is not mentioned in the specification. These claims have been amended and no longer mention the robot. Accordingly, the examiner is respectfully requested to reconsider and withdraw the rejection.

Claims 56-57 were rejected under 35 USC 112, second paragraph, as being indefinite. The phrase "said robot directs in front of said user's face" is unclear. These claims have been amended to correct this limitation. It is respectfully requested that the rejection be withdrawn in view of the amended claims.

Claims 1-58 were rejection under 35 USC 101 because the claimed invention is allegedly directed to non-statutory subject matter. The office action specifies that there is no tangible result such as an output of an answer or statement recited in claim 1, but only an answer output

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signal. Claim 1 as amended now recites "an output unit configured to output the phrase generated by the selection unit to the user," and therefore recites statutory subject matter. Claim 58 is alleged directed to a program per se. Claim 58 has been rewritten in a proper *In re Beauregard* format. In view of the above amendments, the examiner is respectfully requested to reconsider and withdraw the rejection.

Claims 1-12, 15-16, 19-21, 32, 37-43, 48-51, 53-54, 56 and 58 were rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 6,721,706, Strubbe et al. ("Strubbe") in view of U.S. Patent No. 6,173,266, Marx et al. (Marx). Claim 13 was rejected under 35 USC 103(a) as being unpatentable over Strubbe in view of Marx and further in view of U.S. Patent No. 4,439,161, Wiggins et al. ("Wiggins"). Claim 14 was rejected under 35 USC 103(a) as being unpatentable over Strubbe, Marx and Wiggins, further in view of JP 06269534, Ishibashi ("Ishibashi"). Claim 17-18 were rejected under 35 USC 103(a) as being unpatentable over Strubbe and Marx, further in view of U.S. Patent No. 6,905,340, Stansvik ("Stansvik"). Claims 22, 28-29 and 34-36 were rejected under 35 USC 103(a) as being unpatentable over Strubbe, Marx and Wiggins, further in view of Ishibashi. Claim 23 was rejected under 35 USC 103(a) as being unpatentable over Strubbe, Marx, and Ishibashi, further in view of U.S. Patent No. 6,510,411, Norton. Claims 24-25 were rejected under 35 USC 103(a) as being unpatentable over Strubbe, Marx and Ishibashi, further in view of U.S. Patent No. 3,145,993, Archer ("Archer"). Claims 26-27 were rejected under 35 USC 103(a) as being unpatentable over Strubbe, Marx, Ishibashi, and Archer, further in view of U.S. Patent No. 4,652,998, Koza et al. ("Koza"). Claims 30-31 were rejected under 35 USC 103(a) as being unpatentable over Strubbe, Marx, and Ishibashi, further in view of U.S. Patent No. 6,793,498, Nunes ("Nunes"). Claim 33 was rejected under 35 USC 103(a) as being unpatentable over Strubbe, Marx, and Ishibashi, further in view of U.S. Patent No. 6,213,873, Gasper et al. ("Gasper"). Claims 44-47 were rejected under 35 USC

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103(a) as being unpatentable over Strubbe and Marx, further in view of U.S. Patent No.

7,082,392, Butler et al. ("Butler"). Claim 52 was rejected under 35 USC 103(a) as being

unpatentable over Strubbe and Marx, further in view of U.S. Patent No. 6,449,591, Kondo et al.

("Kondo"). Claims 55 and 57 were rejected under 35 USC 103(a) as being unpatentable over

Strubber and Marx, further in view of U.S. Patent No. 6,708,081, Yoshida ("Yoshida"). Insofar

as the rejections may be applied to the claims as amended, the applicants respectfully request that

this rejection be withdrawn for reasons including the following, which are provided by way of

example.

To properly reject a claimed invention, the examiner must establish a *prima* facie case of

obviousness. To establish a *prima facie* case of obviousness with respect to a claimed invention,

all the claim limitations must be taught or suggested by the reference (or references when

combined). *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, it is necessary

to identify the reason why a person of ordinary skill in the art would have combined allegedly

known elements in the manner claimed. *KSR Int'l Co. v. Teleflex, Inc.* No. 04-1350 (U.S. Apr.

30, 2007). The examiner bears the burden of establishing this *prima facie* case. *In re Deuel*, 34

U.S.P.Q.2d 1210, 1214 (Fed. Cir. 1995). Where, as here, the examiner fails to establish a *prima

facie* case of obviousness, then without more the applicant is entitled to grant of patent. *In re

Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

The applicants provide herein a selection of some examples of limitations in the claims

which are neither taught nor suggested by Strubbe. The Office Action admits that Strubbe "does

not explicitly disclose that a speech portion of a dialog interaction is utilized in determining

whether to continue a dialog." (Office Action page 9). The Office Action further admits that

neither Strubbe nor Marx teach that a wrong answer is selected for use in an interactive dialog,

(Office Action page 15), or that a hint is issued after a timeout (Office Action page 16), or that

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an interactive dialog system uses stored word headings and endings (Office Action page 17), or that a system voice response is determined based on a user's recognized provincialism (Office Action page 22), or the use of lip reading for speech recognition (Office Action page 24), or the use of plural directional microphones (Office Action page 24). The Office Action admits the Strubbe, Marx, and Ishibashi fail to teach "the use of an XML format" (Office Action pages 18-19), or that a wrong answer is selected based on an interaction count (Office Action page 19), or to continue to wait for a user's response even when the user's response is incorrect (Office Action page 21), or determining who takes a first turn (Office Action page 22). The Office Action admits that Strubbe, Marx, Ishibashi, and Archer all fail to teach a system difficulty (Office Action page 20).

Recognizing that Strubbe fails to teach and/or suggest the invention as claimed, numerous references are cited to remedy the deficiencies. Marx is cited as teaching a lack of speech period (timeout) for terminating a dialog session. Wiggins is cited as teaching providing an incorrect answer to a user (Office Action page 9). Ishibashi is cited as teaching a verses capping system using a wording in "n" and a game finishing signal, and stored word heads and endings (Office Action page 15, 17). Stansvik is cited as teaching providing a user a hint after a timeout (Office Action page 16). Norton is cited as teaching an XML format (Office Action page 19). Archer is cited as teaching adjusting an occasion interview to make mistakes (Office Action page 19). Koza is cited as teaching a timer-based difficulty (Office Action page 20). Nunes is cited as teaching allowing a user several retry attempts when the user is incorrect (Office Action page 21). Gasper is cited as teaching a means for turn determination (Office Action page 22). Butler is cited as teaching analyzing a user's voice to determine a locality and providing responses in an accent for that locality (Office Action pages 22-23). Kondo is cited as teaching use of lip reading as an application of image recognition in the speech recognition art

(Office Action page 24). Yoshida is cited as teaching several directional microphones in a robot apparatus (Office Action page 24). Nevertheless, Marx, Wiggins, Ishibashi, Stansvik, Norton, Archer, Koza, Nunes, Gasper, Butler, Kondo, and/or Yoshida fails to remedy such deficiencies.

The current independent claims include claims 1, 14, 58, 59, 69, and 70. The claims are amended to distinguish over the cited references. Support for the amendments is located in the application as filed, for example, page 5, lines 18-22, and page 5, lines 16-18.

Independent claim 1 recites in combination, for example, "an evaluation unit configured to evaluate a consistency of an interactive dialog said user, the consistency of the interactive dialog being established even if a spoken language spoken by the user contains a word reflecting a fact that the user makes a mistake in inputting the user's input to the computer system; and a determining unit configured to determine whether or not the interactive dialog with the user is to be continued even further based on a result of the evaluated consistency of the interactive dialog with the user." (See also independent claim 58.)

Newly independent claim 14 recites in combination, for example, "an evaluation unit configured to determine whether or not the user's input is allowed with respect to the rule of the word chain game so as to judge whether or not the word chain game played by the user and the computer system is to be continued; a selection unit configured to select a word if it is determined that the word chain game is to be continued by the evaluation unit, wherein a wrong word that leads to termination of the word chain game due to the computer system breaking the rule is allowed as the selected word."

New independent claim 59 recites in combination, for example, "evaluating a consistency of an interactive dialog based on a result of whether or not the user makes a mistake in inputting the user's input to the computer system in a currently running interactive dialog; selecting words

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from the dictionary so as to generate a phrase which is used to answer to the user's input such that the generated phrase is consistent with the content of the user's input, even if the user's input includes a word or a phrase indicating a fact that the user makes a mistake in inputting the user's input to the computer system." (See also new independent claim 69.) The generated phrase is consistent with the content of the user's input, even if the user's input includes a word or a phrase indicating a fact that the user makes a mistake in inputting the user's input to the computer system.

Independent claim 70 recites in combination, for example, "determining whether or not the user's input is allowed with respect to the rule of the word chain game so as to judge whether or not the word chain game played by the user and the computer system is to be continued; selecting a word if it is determined that the word chain game is to be continued by the evaluation unit, wherein a wrong word that leads to a termination of the word chain game due to breaking the rule by the computer system is allowed as the selected word."

In embodiments according to the above claims, (i) the dialog can be continued, if it is established that the dialog is to be continued on the basis of evaluation results of the correctness or errors in the answer of the user or computer; and (ii) the interactive dialog system/method/computer readable medium evaluates the consistency of a dialog, so that even when the dialog is at cross-purposes, is contradictory, is erroneous, or is inconsistent, a content of a user's input is not always denied. In operation, the interactive dialog system or method for handling a verses capping game (word chain game) between a computer system and a user of the computer system can continue a dialog without hurting a user's feeling, even when there is caused an incorrect recognition on the system side or user side, so that the user can have fun completing the dialog (FIG. 5; page 18, line 22-Page 25, line 1; and page 9, lines 20-24).

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Furthermore, in an embodiments according to these claims, the user is allowed to make a mistake in understanding what the computer system has said, in choosing a wrong word, in pronouncing a word and the like; the computer system not only recognizes the user's mistake and tends to continue the interactive dialog, but also interrogates the user and discovers whether the wrong word should be learned for use in future dialog. That is, the computer system can learn words by experiencing dialog without the use of any teachers.

Claim 1 was rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over Strubbe in view of Marx. Strubbe discloses an interaction simulator (chatterbot) configured to simulate an awareness of the user to generate an interaction that is more natural and appropriate than a prior art interaction simulator (Abstract). In the interaction simulator of Strubbe, templates may be prioritized by a criteria going beyond simply goodness of fit to the words in the user reply (col. 17, lines 7-8), and responses tend to encourage the user to continue talking (col. 17, line 13). Further, the simulator of Strubbe keeps track of the current subject of the discussion (col. 18, line 8) and uses supervised or unsupervised learning (col. 18, lines 49-50). Thus, Strubbe fails to teach or suggest evaluating the consistency of the interactive dialog, as recited in independent claims 1, 14, 58, 59, and 69.

Marx discloses a computer-implemented method for constructing an interactive speech application by storing a plurality of dialogue modules, wherein each dialogue module includes computer-readable instructions for accomplishing a predefined interactive dialogue task. Further, the method of Marx includes error recovery methods which allow a developer to customize error recovery parameters. The error recovery parameters that can be customized include the timeout period, a maximum number of times by which a dialogue module will allow consecutive timeouts, the maximum number of times by which the dialogue module will allow consecutive recognition errors in understanding a caller's response to a specific prompt, confirmation options,

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fallback options, the content of apology prompts, and re-prompts (col. 20, lines 19-34). Thus, Marx also fails to teach or suggest evaluating the consistency of the interactive dialog, as recited in independent claims 1, 14, 58, 59, and 69.

Ishibashi discloses a computer game machine that reads the end of a word from a speech input so as to judge whether or not the end of the word is a predetermined alphabet letter and choose a word in which the beginning thereof matches with the end of the word from the speech input, if a result of the judgment is "NO". Ishibashi fails to teach or suggest the continuation of the dialog on the basis of the evaluation results of the correctness of the answer, the evaluation of the consistency of the interactive dialog, and/or the learning unit, as recited.

Hence, Strubbe and Marx, Wiggins, Ishibashi, Stansvik, Norton, Archer, Koza, Nunes, Gasper, Butler, Kondo, and/or Yoshida, alone or in combination, fail to teach or suggest the combination of features recited in independent claim 1, 14, 58, 59, 69 or 70, when considered as a whole.

With respect to the rejected or new dependent claims, applicant respectfully submits that these claims are allowable not only by virtue of their dependency from independent claims 1, 14, 58, 59, 60, and 70, but also because of additional features they recite in combination.

Moreover, according to various dependent claims, the interactive dialog system comprises a learning unit for storing a novel answer unknown to the system through interrogation by using a synthesize unit the user about the novel answer and storing the novel answer and a scenario regarding the interrogation (Page 6, lines 20-25). (See, e.g., dependent claims 37, 60 and 71.)

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New claims 59-72 have been added to further define the invention, and are believed to be patentable for reasons including these set out above. For example, some of the new claims, including the new independent claims, are discussed above.

New independent claim 59 has been added, and is further deemed to be allowable since none of the references (alone or in combination) teach the combination of the evaluating of the consistency (as recited) and the selecting of a phrase consistent with the content of the user's input even if the user's input is mistaken.

New dependent claim 72 is deemed to be allowable since none of the references teach or suggest that the wording for answering the use is selected from a plurality of series of words, as further recited.

Applicants respectfully submit that, as described above, the cited art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited art shows any of the elements recited in the claims. However, applicants have provided specific examples of elements in the claims that are clearly not present in the cited art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples applicant has described herein in connection with distinguishing over the cited art as limiting to those specific features in isolation. Rather, for the sake of simplicity, applicants have provided examples of why the claims described above are distinguishable over the cited references.

In view of the foregoing, the applicants submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

If there are any problems with the payment of fees, please charge any underpayments and

credit any overpayments to Deposit Account No. 50-1147.

Respectfully submitted,

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